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GEOGRAPHIC SCHOOL BULLETINS

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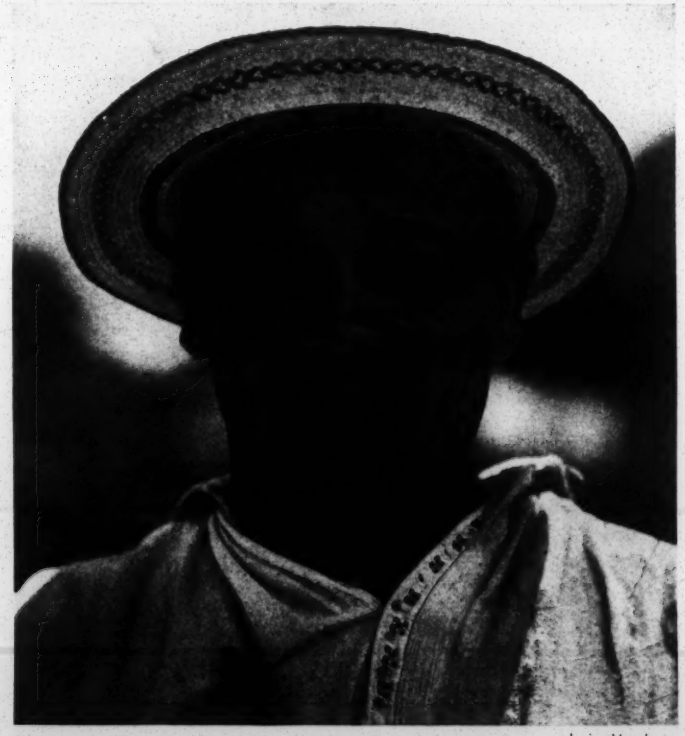

Luis Marden

THIS PANAMANIAN PRIZES HIS TEETH AND HIS TRUE "PANAMA"

In interior Panama this type of headgear is common. Braided and not woven, it differs greatly from the hats, generally called Panamas, which come from Ecuador and Colombia. The filed teeth represent a culture completely at variance with that found in modern Panama City (Bulletin No. 3).

GEOGRAPHIC SCHOOL BULLETIN

HOW TEACHERS MAY OBTAIN THE BULLETINS

The Geographic School Bulletins are published weekly throughout the school year (thirty issues) and will be mailed to teachers in the United States and its possessions for one year upon receipt of 25 cents (stamps or money order); in Canada, 50 cents. Originally entered as second-class matter January 27, 1922; re-entered as of April 27, 1943, Post Office, Washington, D. C., under Act of March 3, 1879. Copyright, 1946, by National Geographic Society, Washington 6, D. C. International copyright secured. All rights reserved. Quedan reservados todos los derechos.

Denied UNO Seat, Spain Has Long History of Government Shifts

FRANCO'S rule in Spain has been formally condemned by the United Nations Organization in unanimous adoption of a resolution forbidding UNO membership. In its long history, Spain has run the gamut of governmental forms. Rumors are rife of more changes as the present regime uneasily rides a wave of widespread criticism.

Spain's modern history begins with the two outstanding events of the year 1492—the conquest of Granada, center of Moorish might, a victory that all but completed the unification of Christian Spain; and the discovery of America, a stroke of fortune that turned on a seemingly endless flow of gold and silver from the New World.

Rich Possessions Lost by Wars

In the centuries that have passed since those events Spain has shifted from one political fashion to another, and has had its ups and downs as a nation. Germany, France, and Italy furnished kings for Spain's centuries as a monarchy.

The first republic was established in 1873 and lasted until 1875, when the monarchy was restored with Alfonso XII. Social ferment and political tensions ended the reign of his successor, Alfonso XIII, in 1931 and brought a second republic. Civil war broke out in 1936 between Nationalist and Popular Front groups. Spain became the battleground of divergent ideologies. The war ended in 1939 with the surrender of Madrid to the insurgent Nationalists under General Franco. From this conflict came a new government with the insurgent leader at its head.

Upheavals at home have been matched by wasting wars with foreign powers and with rebellious natives of colonial possessions. The nation that by papal decree in 1493 could claim the whole of the Western Hemisphere has seen its territorial holdings in the Western World vanish completely. Spain's colonial empire today consists of such relatively unimportant areas of Africa as Spanish Morocco, Spanish Guinea, and Rio de Oro, and the Balearic and Canary islands.

Despite the loss of her most valuable overseas territories, Spain is a "have" country in respect to many commodities the world wants, especially metals and minerals. More than twenty of the nation's 50 provinces have workable stores of copper, lead, zinc, iron, coal, or potash. The Rio Tinto copper mine in Huelva, in the southwest, has long been famous. Gerona's lead mines, on the French border in the far northeast, rate double value for their by-product—fluor spar—used as a flux in steelmaking. Silver mining is a traditional occupation in Guadalajara.

Spain Exports Mercury, Iron, Cork, Olives, and Fruit

Lignite, lead, and potash deposits are available in Barcelona. Murcia, farther south, produces lead and sulphur. Near-by Jaén also produces lead and some iron. Mercury—useful in the recovery of gold and silver, in medicine and in paint processing—is found in Oviedo and Ciudad Real.

For normal export Spain has mercury, iron ore, cork, wine, olives and olive oil, oranges, lemons, grapes, raisins, potatoes, onions, and esparto grass (for paper, baskets, and cordage). Needed by her people are grain, oil, coal and coke, machinery, iron and steel wares, chemicals, and cotton. Food has been a national

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Publishers Photo Service

SPANISH CHRISTIANS PUT A BELL TOWER ATOP A MOSLEM MINARET AND MADE IT A BELFRY FOR SEVILLA'S MASSIVE CATHEDRAL (LEFT)

All but the tapering top of this graceful tower was built by the Moors in 1184-96. Its height and beauty make it even today the distinctive landmark in this ancient Andalusian city on the Guadalquivir. Sevilla was held from 712 to 1248 by the Moors, who brought prosperity and an advanced culture to Spain, but had to be driven back to Africa before Christian Spain could unite to become a leading nation of Europe (Bulletin No. 1).

sweet almond, grown commercially in Mediterranean countries and southern California.

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Manchuria's Railways Return to Joint Russia-China Control

A RUSSIAN share in the management of the Chinese Eastern Railway and the South Manchuria Railway was agreed upon by the Big Three at Yalta. This agreement, later legalized by treaty between the U.S.S.R. and China, again gives Russia an active part in Manchurian transportation. Manchuria's railway development runs through 50 years of diplomatic intrigue, revolution, and wars involving Russia, China, and Japan. Financial stakes involved distant nations.

By treaty in 1896, China granted Russia a short cut across Manchuria to give the Trans-Siberian Railway access to the port of Vladivostok on the Sea of Japan. This route—the Chinese Eastern Railway—runs from Lupin (Manchouli) on the border of Russia's Chita region, to Suifenho on the frontier of Russia's Maritime Territory. The Japanese changed its name to North Manchuria Railway.

Russian Gauge Has Been Changed to Standard

In 1898 China leased to Russia the Liaotung Peninsula, southern gateway to Manchuria. The terms provided for a railroad from Port Arthur (Ryojun) and Dairen, at the tip of the land tongue projecting into the Yellow Sea, north to Changchun (Hsinking). There it joined a branch of the Chinese Eastern Railway running south from Harbin (Pinkiang, illustration, next page). This line later became the trunk of the South Manchuria Railway, which Japan exploited.

The Chinese Eastern Railway totals about 1,070 miles; the South Manchuria Railway, little more than 700. Both have changed from Russia's 5-foot gauge to standard gauge—4 feet 8½ inches. The two systems made up almost half of Manchuria's rail network, and comprised nearly a third of the rail web of all China.

After the Russo-Japanese War of 1904-05, Japan took over most of the railway up the Liaotung Peninsula to Harbin, and built branch lines, notably from Mukden (Shenyang) on the Port Arthur line, to Antung on the Korean border.

In 1915 Japan made its "Twenty-One Demands" on China. One was the demand for the right to build railways to tap the Chinese Eastern's territory and feed the traffic of the South Manchuria system. This demand, when granted, enabled Japan to acquire coal mines and make railway loans to China. Manchuria definitely became a sphere of Japanese influence colored with military aims.

The revolution of 1917 temporarily weakened Russia's power in the Orient. In 1918 the Allies put the Chinese Eastern Railway under an Inter-Allied Board. Later China and Russia jointly controlled the line. The Washington Disarmament Conference of 1922 removed the immediate threat of war in the Far East. Japan seemed to have given up its military designs in Manchuria.

Japan Ran Lines to the Korean Coast

When Russia emerged from disorder a scramble began for transportation advantages in Manchuria. The Chinese Eastern's bid for traffic to Vladivostok set off a rate war with Japanese lines. Japan built new lines to tap Chinese Eastern freight territory. An agreement between the two nations eased the tension. Stirred by the rivalry of Russia and Japan within her borders, China built a line from the Great Wall to Mukden, and one in eastern Manchuria.

Friction between China and Russia developed in the 1920's. When Japan occupied Manchuria in 1931 Russia had to sell her rail holdings to Japan. With complete mastery of Manchuria's railroads, Japan began a large-scale building program, pushing lines to Seishin and Rashin on the Korean coast.

problem through the war years.

Spain shares with Portugal Europe's westernmost mainland, the Iberian Peninsula. Its only other land frontier is the lofty wall of the Pyrenees, blocking off the rest of Europe at the threshold of France. To the north is the broad Bay of Biscay; to the southeast, the balmy Mediterranean.

Spain is a temperate land. Parts of it are as tropical as near-by Mediterranean Africa. It is a country two-thirds the size of Texas, partitioned by a dozen mountain ranges and drained by as many rivers.

Almonds (illustration, below) and olives flourish in Spain; pine and cork are leading forest products. The palms of Elche in the southeast bear tons of dates. Silk culture is well developed in the provinces of Alicante and Murcia. Wine making is a national industry. The town of Jerez gave its name to the first sherry. Cordovan leather originated in Córdoba. Between Córdoba and Sevilla (illustration, inside cover) lies the irrigated belt which produces grapes, citrus fruits, cotton, and rice.

Spain's census of 1940 showed a total of 25,877,971 people. Nineteen cities reported more than 100,000 residents each, with Madrid, the capital, and Barcelona, foremost port and business center, above the million mark.

New ways of living and of working have taken root slowly in this land steeped in local customs and practices. To understand Spain it is well to remember that it is divided into 50 provinces. A few years ago it was commonly said that it had 50 national dances and costumes, and almost as many dialects.

Note: Spain is shown on the National Geographic Society's Map of Europe and the Near East. A price list of maps may be obtained from the Society's headquarters, Washington 6, D. C.

See also "Turbulent Spain," in the *National Geographic Magazine* for October, 1936*; "A Palette from Spain," March, 1936; "Pursuing Spanish Bypaths Northwest of Madrid," January, 1931*; and the issue for March, 1929*, which treats exclusively of Spain. (*Issues marked with an asterisk are included in a special list of Magazines available to teachers in packets of ten for $1.00.*)

Bulletin No. 1, March 11, 1946

Harry A. McBride

THE ENTIRE FAMILY WORKS IN ALMOND-HARVESTING TIME

The farmer knocks the nuts off the peachlike tree with a long pole, and other household members help gather them. When ripe, the almond's thin, hard shell splits open. Spain's two famed varieties are the long Málaga, or Jordan, and the broad Valencia. Both are types of the sweet almond, grown commercially in Mediterranean countries and southern California.

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Panama's National Carnival Born of Raid by Buccaneers

THE Republic of Panama's National Carnival, held March 2-5, doubled this year as a victory celebration. It is an annual pre-Lenten affair—a Mardi Gras commemorating the sacking of the old city of Panama by Henry Morgan and his pirate band.

The carnival dates back to the founding of the present capital city of Panama in 1673. In the early celebration, the young men formed two opposing groups, representing buccaneers and city defenders. Captured defenders were ransomed for a round of drinks; senoritas, for a dance.

Gold Built Early Transportation Routes

The carnival queen, chosen by popular vote from among the city's debutantes, is crowned at an elaborate ceremony. Daily parades feature senoritas in native costumes, and every night dances are held in all the clubs, plazas, and dancing pavilions erected for the occasion. Native dances are performed to the music of drums, the women wearing the traditional costume called the *Pollera.*

The Pacific coast capital (illustration, next page) was founded to handle shipments to Spain of the gold, silver, and other treasures taken by Spanish explorers in Central and South America. Transportation of this wealth forced the first road across the isthmus—a highway cutting the jungle from the city of Panama to the port of Nombre de Dios on the Atlantic side.

For three centuries this road remained the only interocean trade route across Panama. The California gold rush, however, resulted in the building of the first coast-to-coast Panamanian railway in 1855. This line, fed by steamships at both terminals, competed with prairie schooners crossing the United States.

This 47-mile railroad wrote a stirring story of high finance. In addition to hundreds of lives, it cost about $7,500,000—about $160,000 a mile. In 50 years it netted its promoters around $75,000,000, and then was sold to a French canal-building company for $18,000,000.

Men of Many Nations Meet at Panama

Various plans for a Panama canal date from 1523. The first survey was submitted to the Spanish king in 1551, but digging did not begin until 1887, when the French company started operations. The company, headed by Ferdinand de Lesseps, who had promoted the Suez Canal, went into bankruptcy two years later. The present canal, built by the United States, was opened in 1914.

On a world highway, Panama acquired merchants of many nationalities—Chinese, Hindus, Italians, Greeks, German, and others. Spanish is the official language, but most of the population is a mixture of races (illustration, cover). Added to this mestizo group are 80,000 whites, 5,000 Chinese, 70,000 Negroes, and more than 40,000 native Indians to bring the total population of the republic to 465,000.

The city of Panama has grown until it includes almost a fourth of the republic's total population. Though one of the oldest cities in the New World, it is thoroughly modern. The two largest daily newspapers are issued in both Spanish and English, and most of the Spanish-speaking residents also speak English.

The Presidential Palace surrounds a Moorish courtyard, and houses the offices

Railways brought about the economic development of Manchuria—which the Japanese called Manchukuo on establishing a protectorate in 1932. Settlement followed the railways as it did in the American West. Harbin became the railroad center of the north; Mukden of the south.

Manchuria's lumber, coal, and iron ore provide most of the freight tonnage carried by the Chinese Eastern Railway and the South Manchuria system. Prewar coal reserves were believed to equal those of Japan, and iron ore reserves were estimated to be ten times as great. Soybeans, wheat, and sugar beets figured sizably in rail traffic. Much of the bean crop was normally processed into oil and cakes for export. Domestic mills ground a large part of the wheat to flour.

Waterways supplement rails, with Harbin the center of river commerce. The Chinese Eastern Railway once operated its own fleet of steamers.

Ownership and operation of railways in Manchuria meant more to Japan than the money return. In an area three times as large as California, with a prewar population of more than 39,500,000, they regarded the railways as carriers of Japanese culture and civilization. Under railway auspices schools, libraries, hospitals, laboratories, and agricultural experiment stations and farms were established. Industrial side issues included electric and gas works, shipping and dockyard companies, and numerous plants and factories.

Note: Manchuria is shown on the Society's Map of the Union of Soviet Socialist Republics.

See also "New Road to Asia," in the *National Geographic Magazine* for December, 1944*; and "Japan Faces Russia in Manchuria," November, 1942*; and, in the GEOGRAPHIC SCHOOL BULLETINS, April 30, 1945, "Japan-Soviet Far East Border Is Long, Varied, and Explosive."

Bulletin No. 2, March 11, 1946

W. T. Turner

JAPAN AND RUSSIA LEAVE THEIR SIGNATURES ON MANCHURIA'S HARBIN

On the railroad station appear signs in both Russian and Japanese. "Great Manchukuo" say the Jap characters above the clock. Underneath, Russian letters spell Harbin. Russian theater ads border Jap posters at the left. The droshky is a further Russian touch.

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Wheat, Source of One-Fifth U.S. Diet, Made Wartime Records

WHEAT, top item on President Truman's "family-go-lightly" plan for relieving food shortages abroad, supplies an estimated one-fifth of the diet in the United States.

Prime ingredient of "our daily bread," wheat is also the base for cakes, pies, pastry, crackers, biscuits, and rolls; for many breakfast cereals; and for macaroni, spaghetti, and noodles. It is present in many grain beverages. As food for milk cows and fowls, it figures importantly in the production of most dairy and poultry products. In like manner, but to lesser extent, wheat is represented in pork, beef, and other table meats.

Huge Production Is Offset by Record Consumption

The wheat-conserving order came soon after the close of the nation's biggest wheat year. The 1945 crop of 1,123,000,000 bushels surpassed by 50 million bushels that of 1944, the first billion-bushel year in history. The war years, 1942-45, averaged a billion bushels, an impressive increase over the 740-million-bushel average of the ten preceding years, when government controls helped keep down production.

Offsetting record production is record "disappearance," the flow of the harvests into channels of export and home consumption. The wheat stockpile tapered down from 1,373,000,000 bushels late in 1942, when farmers had to store wheat under any available cover, to 835 million bushels at the close of 1944, and to 689 million bushels at the end of 1945. In the last six months of 1945, the "disappearance" of 715 million bushels was more than the full-year crops in the middle 1930's.

Wheat is grown so extensively in temperate regions that every month is harvest month somewhere. Normally, the United States crop is about one-seventh of world production. Only the Soviet Union grows more. India and China, traditional rice countries, grow and consume large wheat crops in their northern reaches. Canada, Argentina, and Australia, with vast wheatlands and sparse populations, rank as the world's big wheat exporters.

Big crops in Ukrainian S.S.R., France, Italy, and Germany normally give Europe more than three times United States wheat production. But Europe is a populous, industrial continent of wheat eaters. Even without war's disruption of their farming, Europeans eat all the wheat they can grow, and buy more. Their shortage for the first half of 1946 is estimated at about 200 million bushels.

One-fourth of Kansas Produces One-fifth of the Nation's Crop

Wheat is grown in all 48 states. In historic 1776, Vermont was the American bread basket. Out of Virginia in 1851 came the mechanical reaper that made eight acres as easy to harvest as one acre had been, and the winning of the midwest by wheat was ready to start.

The billion-bushel crops of 1944 and 1945 have come from 100,000 square miles of wheatfields—enough to cover every inch of New York and Pennsylvania with most of New Jersey thrown in. Wheatfields cover one-fourth of Kansas (illustration, next page), the nation's top producer, source of one-fifth of the crop. North Dakota, Oklahoma, Texas, Montana, Washington, Ohio, and Nebraska follow the leader.

Kansas Texas, and their neighbors grow winter wheat, planted in the autumn

and apartment of the President. Offices of cabinet ministers and their departmental assistants are in the National Palace. Operas, plays, and concerts, subsidized by the government, are presented in the National Theater. Here the Queen of Carnival is crowned.

The heart of the city is the Plaza de la Independencia. Shaded by tropical trees and ornamented with statuary, it is the common meeting place—an outdoor club where men lounge, gossip, and read their newspapers. Facing the square on the west is the old cathedral of Spanish colonial design.

In this tropical city, life is lived much in the open. Temperature is "eighty-six the year around," or thereabouts; but nights are cool. It is always summer in Panama, but during the winter months there is practically no rain. The weather is nearly ideal; an invigorating breeze usually blows in from the sea. The Republic of Panama equals Maine in size, but less than half the jungle-throttled land is occupied.

Almost two-thirds of Panama's imports normally come from the United States, purchaser of the country's bananas, which make up two-thirds of the exports. Industry is limited largely to brewing, distilling, and the production of evaporated milk, furniture, clothing, soap, and candles.

Note: Panama is shown on the National Geographic Society's Map of Mexico, Central America, and the West Indies.

For further information, see "Panama, Bridge of the World," in the *National Geographic Magazine* for November, 1941*; and in the GEOGRAPHIC SCHOOL BULLETINS, March 8, 1943, "Panama, a Link and a Gash Between Continents;" and "Pirate-Fighting Panama Strengthens Defenses," May 4, 1942.

Bulletin No. 3, March 11, 1946

PANAMA CITY, ADJOINING THE CANAL ZONE, IS A RICH WORLD CROSSROADS

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Geo-Graphic Brevities

GOLD-COVERED BUDDHA PRESENTED TO NATIONAL GEOGRAPHIC SOCIETY

THE desire of a resident of Korea to provide a permanent home for his greatest treasure has brought to the National Geographic Society a valuable gold and bronze figure of the Buddha, stuffed with nearly a hundred prayer scrolls.

The 28-inch statue, whose gold coating is obscured by a black patina, is in the traditional meditative pose, cross-legged with the right hand pointing down and the left hand lying in the lap. Translated, the Chinese inscription on its base reads:

"Completed on a fortunate day in the first autumnal moon by Ch'ang Lama of the Ta-ch'ung-chiao Temple at Min-chou, in the first year of the K'ang Hsi Emperor of the Great Ch'ing dynasty."

The time corresponds, in the modern calendar, to the period between August 14 and September 12, 1662. The Min-chou mentioned as the temple site may be the walled town in Kansu Province of western China now known as Minhsien. The community, nearly 375 miles northwest of Chungking, is a center for trade between the Chinese and the residents of the Tibetan plateau to the west.

In announcing the acquisition of the gift, Dr. Gilbert Grosvenor, President of the National Geographic Society, explained the unusual circumstances by which the figure was transferred from the Far East to Washington.

While on duty in Jinsen, Korea, Colonel B. B. Talley of the U. S. Army Engineer Corps heard that a Japanese civil engineer living there possessed a collection of art objects, among them a statue of the Buddha. The colonel visited the Japanese, who offered to contribute the Buddha to an American institution. The American officer agreed to take the figure back to the United States.

Colonel Talley had become familiar with the National Geographic Society while assisting in preparations for the 1935 stratosphere flight of the world's largest balloon, sponsored jointly by the Society and the Army Air Corps.

In the presence of Coloney Talley and his wife, the base of the figure was carefully removed by officials of the Smithsonian Institution. The interior was found to contain tightly rolled prayer scrolls with messages in Tibetan, together with strips of blue, red, and green cloth, bits of coral, a few baroque pearls, grains of rice and wheat, tea, soybeans, and small dried plants.

* * * * *

HARNESSING OF ADIGE RIVER INVOLVED IN TYROL DISPUTE

CONTROL of the Adige River has become a paramount factor in the settlement of Austria's claim to the southern Tyrol—a claim presented to the Big Five committee drafting the Allied peace treaty with Italy. The territory was ceded to Italy following the First World War.

Italy has opposed the transfer partly because of her investment in several hydroelectric plants along the Adige River. Austria is willing to let Italy retain control of the plants and to cooperate in further hydroelectric developments. The Adige River, a turbulent stream about 225 miles long, develops great potential power as it drops to the Adriatic from a height of nearly 5,000 feet.

The river rises in some lakes along the present Italo-Austrian frontier, flows eastward to Merano and then south to Bolzano, both popular vacation resorts. It continues through Trento and Verona to the Po delta. Although swift, it is

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and harvested in the early summer. The Dakotas and Montana, like the wheat provinces of Canada, plant in the spring for late summer harvest.

In the United States as in the world at large, about three-fourths of the planting is winter wheat, one-fourth spring wheat. Because of insufficient autumn rain, too light a snow cover this winter, and some local damage by blowing soil, the 1946 United States crop of winter wheat is expected to fall below 1944 and 1945 levels.

Wheat, like rice, barley, oats, and rye, is an Old World cereal grass developed since prehistoric times for its seed. It ranks far behind the New World's cereal grass, corn, in both acreage and production in the United States, but occupies more land in the world than any other crop. Its point of origin is less positively fixed than that of the other grains, but seems to have been somewhere in southwestern Asia.

Bulletin No. 4, March 11, 1946

J. W. McManigal

A THRESHING CREW'S HOT, DUSTY WORK IS TO SEPARATE WHEAT FROM CHAFF

The steam engine drives the separator with a long crossed belt. Bundle haulers on this Kansas farm dump wheat sheaves into the machine's mouth. In the rear, not seen, the clean grain pours into grain wagons. Straw and chaff pile up behind. Such rigs require 12 to 16 men and are fast disappearing in areas where weather permits in favor of combines, machines with which one or two men cut and thresh grain in one operation.

COLOR PLATES FROM THE NATIONAL GEOGRAPHIC MAGAZINE

A number of separate color pictures from the *National Geographic Magazine* may be obtained from the National Geographic Society for educational use. The pictures are available in packets of 48 sheets and 96 sheets at 30c and 50c a packet respectively. An order blank may be obtained from the National Geographic Society, School Service, 16th and M Streets, Washington 6, D. C.

navigable from its mouth to Bolzano, and in the Lombardy plain it widens to 500 and 600 feet.

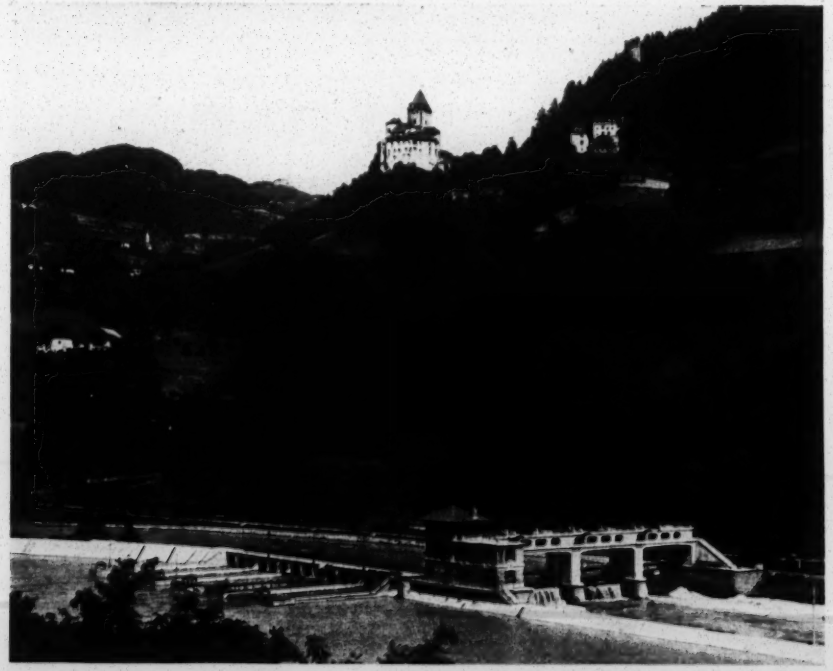
Power plants along the river supplied nine per cent of Italy's prewar electrical output. In 1936 the Italian Government set apart 750,000 acres in the northern Bolzano Province as an industrial area where new steel and aluminum plants contributed to its war effort. The Italian railway from Trento, on the Adige, to Bologna was electrified during the war, raising the electrification of Italian railways to 30 per cent of the total.

One of Austria's chief interests in southern Tyrol is its output of vegetables and fruits. Its orchards produce quantities of apples and pears; potatoes and cabbages are the principal vegetables grown.

The area in question consists of about 5,400 square miles—larger than Connecticut. The land is about equally divided between the northern Italian province of Bolzano and that of Trento to the south. It is mountainous territory devoted largely to forestry, grazing, and the making of wine. Resort traffic is normally quite profitable. At Brenner Pass, on the northern boundary of the area, Hitler and Mussolini often met.

Note: The Tyrol may be located on the Society's Map of Europe and the Near East. For additional information, see "This Was Austria," in the *National Geographic Magazine* for July, 1945; "Over the Alps to Brenner Pass" (map and 15 photographs), December, 1943; and "Tyrol, the Happy Mountain Land," March, 1932*.

Bulletin No. 5, March 11, 1946



Branson de Cou

MODERN POWER IN THE RIVER CONTRASTS WITH FEUDAL POWER ON THE HILL

A branch of the Adige River has been harnessed by Italy to supply electric power to the coal-poor country. Such plants as these have added a new problem for the Italian treaty makers dealing with the knotty South Tyrol question. This area, Austrian before World War I, is again claimed by that country on ethnic grounds. Italy opposes transfer of the territory because of her hydroelectric investment in the Adige River, which arises at the crest of the Alps and flows southward to the Adriatic Sea.